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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,532	01/12/2004	Volker Karl Ottmar Borschel	ACO2858US1	1322

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Lainie E. Parker
Akzo Nobel Inc.
Intellectual Property Department
7 Livingstone Avenue
Dobbs Ferry, NY 10522

EXAMINER

SELLERS, ROBERT E

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/755,532	Applicant(s) BORSCHER ET AL.	
	Examiner Robert Sellers	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The election with traverse of a rotor, a diglycidyl ether of bisphenol A and imidazoles in the reply filed on February 13, 2006 is acknowledged. The claim language has been misinterpreted as directed only to a rotor, stator or field coil. It is acknowledged that a toroid and toroidal tape core are further permutations.
2. A rotor, stator, field coil, toroid and toroidal tape are structural diverse articles classified in different subclasses requiring further burdensome searches.
3. The diepoxide of the epoxy-terminated polyoxazolidone resin embraces myriad species necessitating further burdensome searches within class 525.
4. The curing agents comprise various structurally and functionally diverse compounds and polymers requiring numerous searches within class 525.

The requirement is still deemed proper and is therefore made FINAL.

5. The preliminary amendment filed January 12, 2004 addressing page 1 of the specification does not update the status of parent application no. 10/096,807 as pending.
6. The specification on page 4, lines 21-22 and claims 4, 6 and 8-16 denotes diglycidyl ethers of novolacs. Epoxy resins derived from novolacs contain multiple epoxy groups by virtue of the epoxidation of the multiple phenolic hydroxyl groups of the novolac resin with an epihalohydrin. More favorable consideration would be given to the designation of the novolac epoxy resins as "polyglycidyl ethers of novolacs."
7. The term "an" is grammatically incorrect in claim 3, line 3 and should be changed to "a."

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 9 and 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 8 is dependent upon claim 3 and defines the reaction of a diepoxide with certain species of diisocyanate. Claim 8 is broader than claim 3 due to the denotation of a diisocyanate as opposed to the species of claim 3. The same problem occurs with claim 9 dependent upon claim 6. More favorable consideration would be given to the limitation of claims 8 and 9 to a rotor, stator, field coil, toroid or toroidal tape core according to claim 3 or 6, respectively, wherein the diepoxide is a diglycidyl ether of bisphenol A or a diglycidyl ether of a novolac.

9. Claim 11 is no different in scope from claim 8. Claim 13 is indistinguishable from claim 9. Claim 8 incorporating the limitations of claim 3 wherefrom it depends requires particular species of diepoxide and diisocyanate which is indistinguishable from claim 11 also dependent upon claim 3. Claim 9 incorporating the limitations of claim 6 wherefrom it depends requires certain types of diepoxide and diisocyanate which is indistinguishable from claim 13. Claims 15 dependent upon claim 8, and claim 16 dependent upon claim 9 denote species of both the diisocyanate and diepoxide which are no different from claims 6 and 9 which in conjunction with claims 3 and 6 wherefrom they depend, respectively, already denote species of both. More favorable consideration would be given to the cancellation of claims 11, 13, 15 and 16.

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10. Claim 12 dependent upon claim 4, and claim 14 dependent upon claim 7 define the reaction of particular species of diisocyanate and diepoxide. Claims 4 and 7 already denote the species of diepoxide. In order to more clearly identify the further limitations of claims 12 and 14, more favorable consideration would be given to the language of a rotor, stator, field coil, toroid or toroidal tape core according to claim 4 or 7, respectively, wherein the diisocyanate is selected from the group consisting of 1,6-hexamethylene diisocyanate, 2,6-hexahydrotoluylene diisocyanate, and 4,4-diphenylmethane diisocyanate.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Nos. 11-92628 and 2000-143938 in view of European Patent No. 113,575 and Uchida et al. Patent No. 5,449,737.

11. Japanese '628 and '938 (page 2, paragraph 5) discloses the elected species of a rotor coated with a powder coating comprising an epoxy resin and a curing agent such as the elected species of imidazoles (Japanese '628, page 3, paragraphs 9 and 11) and Japanese '938, paragraphs 11 and 13).

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Japanese '628 in Example 1 (page 6, paragraph 22) of shows 42.7% by weight of epoxy resins and 1.9% by weight of a curing agent. Japanese '938 in Example 1 (pages 6-7, paragraph 29) exhibits 39.2% by weight of epoxy resins and 1.8% of a curing agent.

12. The claimed epoxy-terminated polyoxazolidone resin is not recited. The European patent sets forth higher glass transition temperatures and improved adhesion over lower molecular weight epoxy resin powder coatings (page 1, third paragraph) via the use of a powder coating prepared from an epoxy-terminated polyoxazolidone resin preferably derived from the elected species of a bisphenol A diglycidyl ether (page 2, lines 18-20) and the hexamethylene diisocyanate or 4,4'-diphenylmethane diisocyanate (page 3, lines 5-6 and 9, i.e. methylene bis(phenyl isocyanate, MDI), and from 0.1 to 70% by weight of a curing agent such as imidazoles (page 5, second full paragraph).

13. Uchida et al. teaches a composition useful as a powder coating (col. 1, line 13) containing an epoxy-terminated polyoxazolidone (col. 2, lines 54-57) of a tetrabromobisphenol A-advanced bisphenol A diglycidyl ether (col. 12, Referential Examples A-C), diphenylmethane diisocyanate and tetrabromobisphenol A (cols. 12-13, Production Examples 1-14, Epoxy Resins E-H) combined with from 0.1-50% by weight (col. 10, lines 30-33) of a curing agent such as imidazoles (col. 8, line 58 and col. 9, line 61 to col. 10, line 10).

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A comparison between Examples 1-4 (col. 14, Table 5) using an epoxy-terminated polyoxazolidone and Comparative Example 2 employing a tetrabromobisphenol A-advanced bisphenol A diglycidyl ether demonstrates enhanced Tg, Erichsen elongation and heat resistance for the epoxy-terminated polyoxazolidone.

14. It would have been obvious to utilize the epoxy-terminated polyoxazolidone of the European patent and Uchida et al. as the epoxy resin of Japanese '628 and '938 in order to improve raise the glass transition temperature and better the adhesion, Erichsen elongation and heat resistance.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the European patent and Uchida et al. in view of Japanese '628 and '938.


15. The references are described hereinabove. The European patent and Uchida et al. do not recite the claimed rotor, stator, field coil, toroid or toroidal tape core.

16. It would have been obvious to apply the powder coatings of the European patent and Uchida et al. to a particular articles such as the rotor of Japanese '628 and '938 in order to provide a coating with a high glass transition temperature and optimal adhesion, Erichsen elongation and heat resistance.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remainder of the cited prior art has been previously made of record in parent application no. 10/096,807.

(571) 272-1093 (Fax no. 571-273-8300) Monday to Friday, 9:30 to 6:00
rs 3/10/2006



ROBERT E.L. SELLERS
PRIMARY EXAMINER